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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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OWENS CORNING
2790 COLUMBUS ROAD
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EXAMINER

TORRES VELAZQUEZ, NORCA LIZ

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/966,309	Applicant(s) KRANENDONK, DIRK
	Examiner Norca L. Torres-Velazquez	Art Unit 1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 22-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 22-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed October 01, 2004 have been fully considered but they are not persuasive.

a. Applicants argue that the Jackson reference does not teach a regular roller paintable outer surface, but instead forms surface having “randomly distributed discontinuities”.

It is noted that the term “regular” is not defined in the Specification as to preclude the “discontinuities” of the surface in the Jackson reference. The Specification recites that the matrix polymeric material 54 is a thermoplastic polymer material that is capable of adhering to the fiber tissue 52 and provides a regular, paintable surface upon cooling. (Specification, page 7, last paragraph) The term “regular” is not defined. Therefore, the term “regular” which is synonymous to “normal”, implies lack of deviation from what has been discovered or established as the most usual or expected. [*Merriam-Webster's Collegiate Dictionary, Tenth Edition, page 985*] Therefore, it is the Examiner's position that the Jackson reference meets the recited limitation of being a regular surface. Further, the present specification and the recited claims do not define the term “regular” by any measurable mean so as to preclude the microscopic “discontinuities” taught by Jackson from the present invention. With regards to the recitation that the outer surface is roller paintable, it the Examiner's position that this is intended use and no patentable weight is given to such limitation since it doesn't provide further structure to the claim. On the

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alternative, nothing in the Jackson reference precludes from painting the surface with a roller.

b. It is noted that Applicants further argue that the discontinuities found in the Jackson et al. reference are deleterious from the standpoint that they would more readily receive any paint applied to the surface, thus magnifying the imperfect, or “irregular” nature of the surface. Applicants further stated that due to the “irregular” nature of the surface of Jackson, they use special methods of printing such as “gravure, flexography, screen printing, jet printing and web printing”; instead of painting it using a conventional roller.

It is noted that the Jackson reference uses the methods described above in order to print decorative patterns and designs to its surface. However, the reference does not preclude the use of a conventional roller to paint its surface in the production of their wall covering, nor it further precludes further painting the wall covering. It is also noted that the Jackson reference teaches the use of additives into the plastisol composition. (Col. 5, lines 27-37)

It is the Examiner’s position that Applicant’s arguments are contradictory to their Specification, which discloses that the polymeric material has a degree of gas permeability to allow moisture to escape from underneath and teaches using a mineral filler that acts to add structure to the polymer surface, thereby helping to prevent slippage of the roller type applicator used to paint the polymeric surface, thereby increasing painting efficiency. (Specification, page 3, first & second paragraphs).

Therefore, it is the Examiner's position that the surface taught by Jackson et al. is "regular" enough as to provide enough structure to allow for a roller type applicator to be used to paint the polymeric surface and to allow for the existence of a degree of gas permeability to allow moisture to escape from underneath as aimed by Applicants. This position is supported by the fact that Jackson also teaches the incorporation of conventional components (Column 5, lines 27-37) that would act as fillers providing structure to the surface. Further, the reference teaches that the porous polymeric ply has a smooth, **continuous**, aesthetically pleasing appearance, while simultaneously achieving a moisture vapor permeability, which prevents moisture from being trapped on or within a wall to which the wall covering is applied, also aimed by Applicants invention. (Refer to Jackson Col. 2, lines 23-31)

c. With regards to claim 2, Applicants argue that Jackson is silent as to the claimed surface tension. With regards to claims 8 and 30, require that the wall covering material have a water vapor transmission rate of at least approximately 1 gram/m² per day.

This is considered by the Examiner as being inherent to the teachings of JACKSON et al. See new rejection below.

d. Applicants argue that Jackson fails to explicitly disclose the use of polyethylene and polypropylene resins.

It is noted that the Jackson et al. reference teaches the use of a plastisol that includes the claimed resins.

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e. The Examiner maintains her position that Gunberg et al. uses the same thermoplastic polymer materials is relevant because the reference provides all the structural elements claimed herein. Applicants are not claiming a paint layer; therefore, the limitation requiring that the thermoplastic polymer coating providing a roller paintable, visible outer surface is considered an intended use.

f. Applicant's arguments with respect to claims 6-7, 28-29 and 35 have been considered but are moot in view of the new ground(s) of rejection. Claims 6-7, 28-29 and 35, require that the thermoplastic polymer coating further comprises a mineral filler to create a non-smooth outer surface.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention as stated in previous action.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who

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has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1, 3-5, 11, 12 and 22-27 and 31-35 are rejected under 35 U.S.C. 102(b) as being anticipated by JACKSON (US 5,876,551) and further evidenced by WO 95/07946 (Abstract).

JACKSON teaches a breathable, decorative wall-covering having a smooth, continuous, aesthetically appealing exposed surface which can be printed with a design or pattern having sharply defined edges, and having a relatively high moisture permeability. The wall covering includes a porous polymeric ply fused to a nonwoven substrate ply. The porous polymeric ply is formed by thermally fusing a plastisol coating. The plastisol coating is thick enough to allow the formation of a coating, which upon thermal fusion provides a polymeric ply having a smooth continuous appearance. Upon heating the plastisol coating to a temperature, which is sufficient to cause fusion of resins contained therein, a highly permeable polymeric ply having the appearance of smooth, continuous film is formed. (Abstract) The reference further teaches that suitable resins used in the plastisols generally include a variety of thermoplastic resins, which are capable of fusing and absorbing the plasticizer upon application of heat. (Column 4, lines 62-67) With regards to claims 5, 27, 31-32 and 35 it is noted that the use of resins such as polyethylene in plastisol to produce a coating material is known in the art as evidenced by the abstract of WO

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95/07946. Further, JACKSON teaches the incorporation of titanium oxide, among other components, in the plastisol. (Column 5, lines 27-37) It is noted that the plastisol described by JACKSON is a dispersion. With regards to claim 22 and 34, JACKSON further teaches that the plastisol coating is preferably applied at a coating weight of from about 47 grams per square meter to about 155 grams per square meter. (Column 5, lines 52-57) With regards to claims 11 and 12, JACKSON teaches the use of mineral fibers in the nonwoven and also teaches that the area weight of the nonwoven is from about 47 gsm to about 61 gsm). (Column 4, lines 32 and lines 59-61) JACKSON also teaches that the two ply composite wallcovering generally have a moisture permeability of from about 25 perms to about 50 perms. (Column 6, lines 42-44)

It is the Examiner's interpretation that the plastisol taught by JACKSON will read on the presently claimed thermoplastic polymer coating since the plastisol contains thermoplastic resins in a dispersion. The nonwoven substrate ply is equated to the presently claimed nonwoven fiber tissue or mat.

6. Claims 1, 3-5 and 11-12 are rejected under 35 U.S.C. 102(e) as being anticipated by GUNBERG et al. (US 6,203,646) as stated in previous action.

GUNDBERG et al. discloses a method of producing a mineral fiber element comprising a mineral fiber base layer having a surface coating in the form of a fibrous netting formed of a thermoplastic polymer material wherein such a surface coating is provided on at least a part of the surface of the base layer, wherein the surface coating is formed by heating a thermoplastic polymer material so as to melt it and distributing the polymer melt obtained in the form of fibers and/or filaments on the surface of the base layer and cooling it to form a solid layer. (Abstract)

The mineral base layer may have any form and typically it has the form of an endless web, a web, a mat or a sheet. (Column 3, lines 39-40) Therefore, the mineral base layer of GUNDBERG et al. equates to the claimed non-woven fiber tissue or mat of the present invention. Further, GUNDBERG et al. also anticipates the limitations of claim 11 since it teaches the use of mineral fibers. (Above) Since the material is the same, it would inherently meet the limitation "requiring less paint..."

With regards to claims 3, 4 and 5, GUNDBERG et al. teaches the use of a surface coating with a surface weight of from 2 g/m² to 50 g/m². It also teaches the use of thermoplastic polymer materials such as polyethylene and polypropylene. (Column 3, lines 12-35)

With regards to claim 12, the reference teaches that in order to impart sufficient strength to the non-woven material, it should have a surface weight of at least about 20 g/m². (Column 1, lines 47-51)

Claim Rejections - 35 USC § 102/103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, 8 and 30 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JACKSON et al.

JACKSON et al. is silent with respect to the claimed surface tension of the coating surface and the water transmission rate. However, it is reasonable to presume that the claimed properties are inherent to the invention of JACKSON et al. Support for said presumption is

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found in the use of the same starting materials (i.e. fiber matt and thermoplastic polymer coating), like processes of making the articles (i.e., melting polymer of the matt), and the production of similar end-products (i.e., reinforced mineral fiber materials, etc...). The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the presently claimed function of surface tension and water transmission rate would obviously have been provided as a result of the product of the JACKSON et al. reference. *Note In re Best*, 195 USPQ 433.

9. Claim 2 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over GUNBERG et al.

It is noted that GUNBERG et al. is silent with respect to the claimed surface tension of the coating surface. However, it is reasonable to presume that the claimed surface tension is inherent to the invention of GUNBERG et al. Support for said presumption is found in the use of the same starting materials (i.e. fiber matt and thermoplastic polymer coating), like processes of making the articles (i.e., melting polymer of the matt), and the production of similar end-products (i.e., reinforced mineral fiber materials, etc...). The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the presently claimed function of surface tension would obviously have been provided as a result of the inventive product of GUNBERG et al. *Note In re Best*, 195 USPQ 433.

10. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over GUNBERG et al. as applied to claims 1, 3-5 and 11-12 above, and further in view of PENZ et al. (US 5,888,913).

GUNBERG et al. fails to teach the use of mineral filler in the thermoplastic polymer coating.

PENZ et al. discloses glass matt reinforced thermoplastic and one of the object of their invention is to find glass matt reinforced thermoplastics with no insert visibility and that on the painted part satisfactory paint adhesion on the glass matt reinforcement thermoplastic surface is obtained without great expenditure. The reference teaches the addition of fine-particle, mineral fillers to enhance the paint adhesion. (Column 1, lines 64 – Column 2, lines 1-10)

The reference further teaches adding mineral fillers such as talc, chalk and barium sulfate at concentrations from 2 to 60% by weight to the thermoplastics. (Column 3, lines 14-18)

Since both GUNBERG et al. and PENZ et al. are from the same field of endeavor, the purpose disclosed by PENZ et al. would have been recognized in the pertinent art of GUNBERG et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the thermoplastic polymer coating and provide it with mineral fillers with the motivation of obtaining a satisfactory paint adhesion on the glass matt reinforced thermoplastics as disclosed by GUNBERG et al. (Above).

Claim Rejections - 35 USC § 103

11. Claims 6-7 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over JACKSON as applied above, and further in view of PENZ et al. (US 5,888,913).

PENZ et al. discloses glass matt reinforced thermoplastic and one of the object of their invention is to find glass matt reinforced thermoplastics with no insert visibility and that on the painted part satisfactory paint adhesion on the glass matt reinforcement thermoplastic surface is

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obtained without great expenditure. The reference teaches the addition of fine-particle, mineral fillers to enhance the paint adhesion. (Column 1, lines 64 – Column 2, lines 1-10)

The reference further teaches adding mineral fillers such as *talc*, chalk and barium sulfate at concentrations from 2 to 60% by weight to the thermoplastics. (Column 3, lines 14-18)

Since both JACKSON et al. and PENZ et al. are from the same field of endeavor, the purpose disclosed by PENZ et al. would have been recognized in the pertinent art of JACKSON et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the thermoplastic polymer coating and provide it with mineral fillers with the motivation of obtaining a satisfactory paint adhesion on the glass matt reinforced thermoplastics as disclosed by GUNBERG et al. (Above).

12. Claims 9, 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over GUNBERG et al. as applied to claims 1, 3-5 and 11-12 above, and further in view of MELBER et al. (US 4,898,892).

GUNBERG et al. fails to teach the use of an opacifying agent such as titanium dioxide in the thermoplastic polymer coating.

MELBER et al. discloses a method for making an opaque coating comprising combining a film forming coating binder and a composite opacifier. The reference teaches the use of inorganic opacifier materials such as titanium dioxide and calcium carbonate. (Column 1, lines 36-45) On Table III, the reference teaches how the film thickness and volume of opacifier is necessary for 94% hiding. (Column 17, lines 6-23). With regards to claim 13, the claimed composition for the coating is known under the trademark product Papermatch as a dispersion of

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ground calcium carbonate and ground titanium dioxide in high density polyethylene and the prior art of reference teaches the use of these components, the ratio or ranges of concentration of these would be an obvious cause-effective variable that will depend on the intended refractive index of the opacifying component. (Refer to claims 1 and 3)

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the coating material to contain titanium dioxide with the motivation of providing the coating with "hiding" as disclosed by MELBER et al. (Above and also refer to column 2, lines 24-26).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Norca L. Torres-Velazquez
Examiner
Art Unit 1771

December 13, 2004